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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/663,259

09/16/2003

Norman S. Martucci

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EXAMINER

AFTERGUT, JEFF H

ART UNIT

PAPER NUMBER

1733

MAIL DATE

DELIVERY MODE

08/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/663,259	MARTUCCI, NORMAN S.	
	Examiner	Art Unit	
	Jeff H. Aftergut	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-13,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) 6-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,13,16 and 17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "26" and "28" has been used to designate both a part of the hose assembly as depicted in Figure 2 and a redirecting, impregnating wheel as depicted in Figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show bending device 24 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be

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removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings were received on June 21, 2007. These drawings are not accepted for the reasons expressed above.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 13, 16 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In each of claims the applicant has recited that the plurality of wheels in the reservoir are "rotatable", however the original disclosure does not support the same. There is no indication from the original disclosure

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that the bending objects were “rotatable”. While it was described as a wheel or a pulley on page 7, lines 23-28, there is no description of the rotation of the bending objects as originally filed. Additionally, the original disclosure stated that the bending objects were “adjustable in both vertical **or** horizontal directions” (see page 8, lines 15-19). The claims all now require that the bending objects are adjustable in both vertical **and** horizontal directions, which was not originally in applicant's possession (as the original disclosure appears to define that the objects were adjusted either in the vertical or horizontal direction. It should be noted that introduction of the amendment to the specification at page 8, line 20 in the amendment dated 6-21-07 introduces new matter to the disclosure by stating that the bending objects are adjustable in both the vertical and horizontal direction. Applicant is advised that a correction to page 8, lines 15-19 **MUST** be made to make it clear whether the bending objects are adjustable only in either the vertical or horizontal direction or in both directions.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Japanese patent 2001-289366 or Mathews et al (US 2002/0056511) in view of any one of Bates et al '743 Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 further taken with Gareis, Dennis (newly cited) and Fawley et al (newly cited).

Either one of Japanese Patent 2001-289366 or Mathews et al suggested that it was known at the time the invention was made to form a braided hose assembly by applying a braided reinforcing material about an inner tubular layer, dispersing a polymeric material and a carrier fluid into the braided material to fill the interstices of the braided assembly and sintering the braided assembly after coating with the dispersion. The references both suggested that the braided hose assembly would have been fed through a reservoir which contained the dispersion therein, however there is no evidence that in the reservoir one skilled in the art would have opened up the fibers of the braid in order to facilitate the impregnation of the material. The applicant is specifically referred to the abstract of the disclosure of Japanese Patent '366 and paragraph [0036] of Mathews et al.

The references to any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 suggested that in a reservoir bath one skilled in the art desiring to impregnate a fiber bundle wherein the interstices or gaps between the fibers were completely infiltrated with resin would have incorporated a means to open the fibers up within the coating bath. More specifically, the references to Bates et al '743 at column 4, lines 35-65, column 5, line 1-column 6, line 59, Bates et al '282 at column 4, line 35-65, column 5, line 1-column 6, line 59, Marzocchi et al '830 at column 3, lines 44-60, Marzocchi et al '123 at column 6, lines 48-56 or Marzocchi '452 at column 5, lines 21-29. Clearly, the references to any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 suggested that within the reservoir one skilled in the art would have opened up the fibers in the

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assembly in order to facilitate impregnation of the same and that the opening up of the fibers within the reservoir would have been performed with the use of rollers in the reservoir about which the fibers were bent as they passed through the bath in order to promote impregnation within the spaces of the fibers. It should be noted that the opening up of the fibers with these rollers was a function of the working (tension) applied to the fibers as they pass over and under the rollers. It would have been obvious to one

of ordinary skill in the art at the time the invention was made to employ the techniques of any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 for impregnation of the fibers with a dispersion in order to ensure complete impregnation of the braided fiber assembly in either one of Japanese Patent 2001-289366 or Mathews et al (US 2002/0056511).

While the references as set forth above suggested that one skilled in the art would have bent the fibers in a resin impregnation bath in order to provide the coating between the fibers in the bath, the references to any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 are not treating a braided material within the bath. However, it was also known to open a braid up in a resin bath with a series of rollers therein in order to facilitate impregnation as suggested by Gareis. More specifically, the applicant is referred to rolls or bars 42, 44, 46, and 48 over and under which the braided assembly passes as it was fed through an impregnation bath in order to facilitate infiltration of the resin into the braid, see column 4, lines 29-35. Clearly, the technique used to coat the individual fibers of the roving or

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fiber bundles of any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 would have also been useful for coating a braided material to ensure infiltration of the coating material into the braid. Note that Gareis expressly stated that:

"The cable 20' is drawn through the tank 40 by an external means (not shown), such as a powered take up reel used in cable manufacturing, over a series of guide rollers 42, 44, 46, and 48 which provide a path of sufficient length through the bath to insure the gel material has adequately penetrated and filled essentially all of the void spaces in the braided layer 28."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the techniques of any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 in the braided hose assemblies of either one of Japanese Patent '366 or Mathews et al as such would have facilitated impregnation of the braid with the dispersion as evidenced by Gareis. The combination failed to express that one skilled in the art would have been capable of adjusting the spacing of the rollers both vertically and horizontally in the processing wherein the adjustment of the spacing of the rollers allowed for adjustment in the opening up of the filaments of the fibers being treated.

Dennis and Fawley et al suggested that those skilled in the art at the time the invention was made would have understood that the spreading out of fibers as they pass over and under bending/opening means was well known in the art and that the artisan would have included means to adjust the relative spacing between the various bending devices in order to maintain control over the opening of the fibers in the processing. More specifically, Dennis suggested that one skilled in the art would have

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mounted rollers 5 on arms 6 in such a manner that the vertical position of the rollers 5 could be varied in order to vary the total angular deviation the fibers were subjected in the processing, see column 4, lines 25-32 and column 2, lines 29-44 of Dennis. Fawley suggested that one skilled in the art would have varied the position of the bars 20, 22, 24, by adjusting their horizontal position where the tension on the fibers would have been controlled and the separation of the fibers would have occurred, see column 6, lines 58-60, column 7, lines 4-9. thus, the references to Dennis and Fawley both suggested adjustment of the spacing of rollers which acted upon the fibers in a similar manner to the rollers of any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 in order to separate the fibers into individual filaments and uniformly tension the same while working upon the filaments. While Dennis adjusted vertically and Fawley Horizontally, there is no reason to believe that one skilled in the art would not have understood that rollers which were adjustable in both the vertical and horizontal directions would not have been employed as such adjustability would have allowed for fine tuning of the separation of the filaments and the tension the fibers were under as they were being worked upon. In order to optimize the separation of the fibers to individual filaments without applying undue tension upon the same (where uniform tension was desired), it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the rollers in any one of Bates et al '743, Bates et al '282, Marzocchi et al '830, Marzocchi et al '123 or Marzocchi '452 with adjustability in both the vertical and horizontal directions as such adjustability would have allowed one to better regulate the tension upon the fibers as

well as the spacing provided between the same as suggested by Dennis and Fawley et al in the process of impregnating a braided material with a dispersion as taught by either one of either one of Japanese patent 2001-289366 or Mathews et al wherein the processing with the rollers in the bath to open up the fibers would have been useful for the braided assembly as taught by Gareis.

Response to Arguments

8. Applicant's arguments with respect to claims 1, 13, 16, and 17 have been considered but are moot in view of the new ground(s) of rejection.

The applicant is advised that the references to Dennis and Fawley clearly suggested that one skilled in the art would have provided for the adjustability of the rollers in the bath in order to facilitate the regulation of tension and spreading of the fibers in the reservoir during impregnation.

Election/Restrictions

9. Claims 6-12 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 4-28-06.

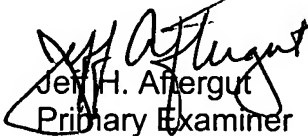
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
August 22, 2007